## Appendix D

# Combat Operations Under Unusual Conditions

The following paragraphs describe the unusual environmental and weather conditions under which the JTAGS shelter can be operated. These paragraphs describe the conditions when the shelter can be operated and those conditions in which the shelter should not be operated.

## DESERT CONDITIONS

D-1. The JTAGS shelter can be operated in a desert condition consisting of blowing sand and dust with particle concentrations up to 2.19 grams per cubic meter ($g/m^3$) in multidirectional strong winds. The JTAGS system should not be operated when the outside ambient temperature exceeds 120 degrees Farenheit (F).

## TROPICAL CONDITIONS

D-2. The JTAGS shelter can be operated under tropical conditions that include rain, high temperature, and high humidity. The JTAGS can be operated during blowing rain, temperatures not to exceed 120 degrees F. If humidity is measured at less than or equal to 88 percent, JTAGS can be operated when temperatures range from 88 to 105 degrees Farenheit.

## ARCTIC CONDITIONS

D-3. The JTAGS shelter can be operated under arctic conditions that include falling and blowing snow, icing, and high-wind conditions. The JTAGS system can be operated during exposure to falling snow with crystal size of 0.05- to 20.0-mm diameter. Antenna systems are susceptible to damage from ice, snow, and water accumulation. JTAGS personnel should effect special inspection and maintenance procedures to protect exposed equipment.

## NUCLEAR, BIOLOGICAL, AND CHEMICAL (NBC) CONDITIONS

D-4. The JTAGS shelter and communication and automation equipment can be operated in an NBC environment. The JTAGS is not vulnerable to chemical attacks, except for corrosive effects, if the equipment is not cleaned.

## ELECTROMAGNETIC PULSE (EMP) CONDITIONS

D-5. If detachment personnel, the shelter, and communication and automation equipment survive a high-altitude nuclear burst, it is not likely that the JTAGS will function. EMP generated by a nuclear detonation could cause permanent circuitry damage by entering through antennas or unshielded connectors and traveling through entire networks. EMP can damage any electronic equipment that is not properly shielded and could disrupt the data received from reporting DSP satellites.